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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,044	11/04/2003	Michael G. Adlerstein	RTN2-153PUS	5522

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EXAMINER	
NGUYEN, VINCENT Q	

ART UNIT	PAPER NUMBER
2858	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/701,044	ADLERSTEIN ET AL.	
	Examiner	Art Unit	
	Vincent Q Nguyen	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-3 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/04/03; 11/11/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. In the IDS filed 11/04/2004 and 11/11/2004, please submit the date (Month and year) of the documents listed under Other Prior Art for them to be considered by the examiner (e.g. the date of article Power Measurement Basis on page 2/2 of the paper filed 11/04/2003 ... etc.)

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7, 12, 13, are rejected under 35 U.S.C. 102(b) as being anticipated by Haimson (4,713,581).

Regarding claim 1, Haimson discloses a circuit comprising (figure 4) a Wheatstone bridge (12) having at least one element thereof thermally responsive to the radio frequency energy passing therethough differently from radio frequency energy passing though at least one other element of the bridge (Column 8, lines 48-58).

Regarding claims 2, 7, Haimson discloses a circuit comprising (Figure 4) a Wheatstone bridge (12) having a pair of parallel circuit paths disposed between a pair of input nodes (It is inherent for any Wheatstone bridge includes the prior art of Haimson to have a pair of parallel circuit paths disposed between inputs nodes), each path (A_4,

A_1, A_2) having a pair of serially connected elements (Haimson does not shown but inherent in any bridge; basically a resistor connecting A_4 to A_1 in series with A_1 to A_2), each pair of elements in each one of the paths being connected at a corresponding one of a pair of output nodes (A_4, A_2) at least one element in a first one of the pair of paths being thermally responsive to the radio frequency energy passing therethough differently from radio frequency energy passing though at least one other element in the other one of the pair of paths (Column 8, lines 48-58).

Regarding claim 3, Haimson discloses a first one of the input nodes (11) is coupled to a source of the radio frequency energy (10) and to a source of dc voltage (The source 10 must be connected to DC source to receive power to drive).

Regarding claim 4, Haimson discloses a feedback loop (13) responsive to a voltage produced across the output node for providing a control voltage to the first one of the pair of input node (11).

Regarding claim 12, Haimson discloses a method comprising the steps of providing a Wheatstone bridge (12) having a pair of parallel circuit paths disposed between a pair of input nodes (A1, A2), each path having a pair of serially connected elements (Haimson does not shown but is inherent for any bridge), each pair of elements in each one of the paths being connected at a corresponding one of a pair of output nodes (A2, A4), at least one element in a first one of the pair of paths being thermally responsive to the power passing therethough differently from power passing though at least one other element in the other one of the pair of paths (Column 8, lines 48-58) and wherein a first one of the input nodes is coupled to a source of the radio

frequency energy (10) and to a source of dc voltage (Source 10 must connect to DC source to receive power to drive); and a feedback loop (13) responsive to a voltage produced across the output node for providing a control voltage to the first one of the pair of input node (11); applying a first type (From 18) of power to the bridge with the feedback loop providing a voltage to the first one of the node and with such bridge being in a balanced condition within the bridge; and applying a second type of power to the bridge with the bridge becoming imbalanced from such applied second power and with the feedback loop changing the voltage to the first node, such changed voltage providing an indication of the application of the second type of power (The balance processor 18 applies the first, the second type to balance bridge) (Column 7, lines 27-40).

Regarding claim 13, Haimson discloses dc power and the second power is RF power (Element 10 is RF source, power supplied from source 10 must be RF power).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5, 6, 8-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Haimson (4,713,581) in view of Kanke et al. (5,681,989).

Regarding claims 5, 8, Haimson does not disclose capacitors parallel with resistors.

Kanke et al. discloses a system similar to that of Haimson and further discloses the first one of the paths (13, 11) includes a capacitor (17) disposed in shunt with an electrical element having an electrical property varying with the radio frequency energy passing through such electrical element (Frequency varies with temperature) for the purpose of stabilizing the operation of the hot wire driving circuit (Column 8, lines 17-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the capacitor as taught by Kanke et al. into the system of Haimson et al. because it would have been desirable to stabilize the operation of the hot driving circuit.

Regarding claims 6, 9-11, Haimson discloses the electrical property (In bridge 12) is electrical resistance.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent No. 6,198,296 (Ivanov) discloses a linearization circuit having a sensor circuit including a first terminal receiving an excitation voltage, and second and third terminals producing a sensor output voltage therebetween. A current direction switch circuit includes a fourth terminal receiving the scaled linearization current, a fifth

terminal and conducting a correction current proportional to the linearization current, and a control terminal receiving a polarity control signal to determine the direction of flow of the correction current through the fifth terminal in response to the sensor output voltage.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q Nguyen whose telephone number is (571) f272-2234. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (571) 272-2233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vincent Q. Nguyen
Primary Examiner
Art Unit 2858

V. Nguyen

December 10, 2004